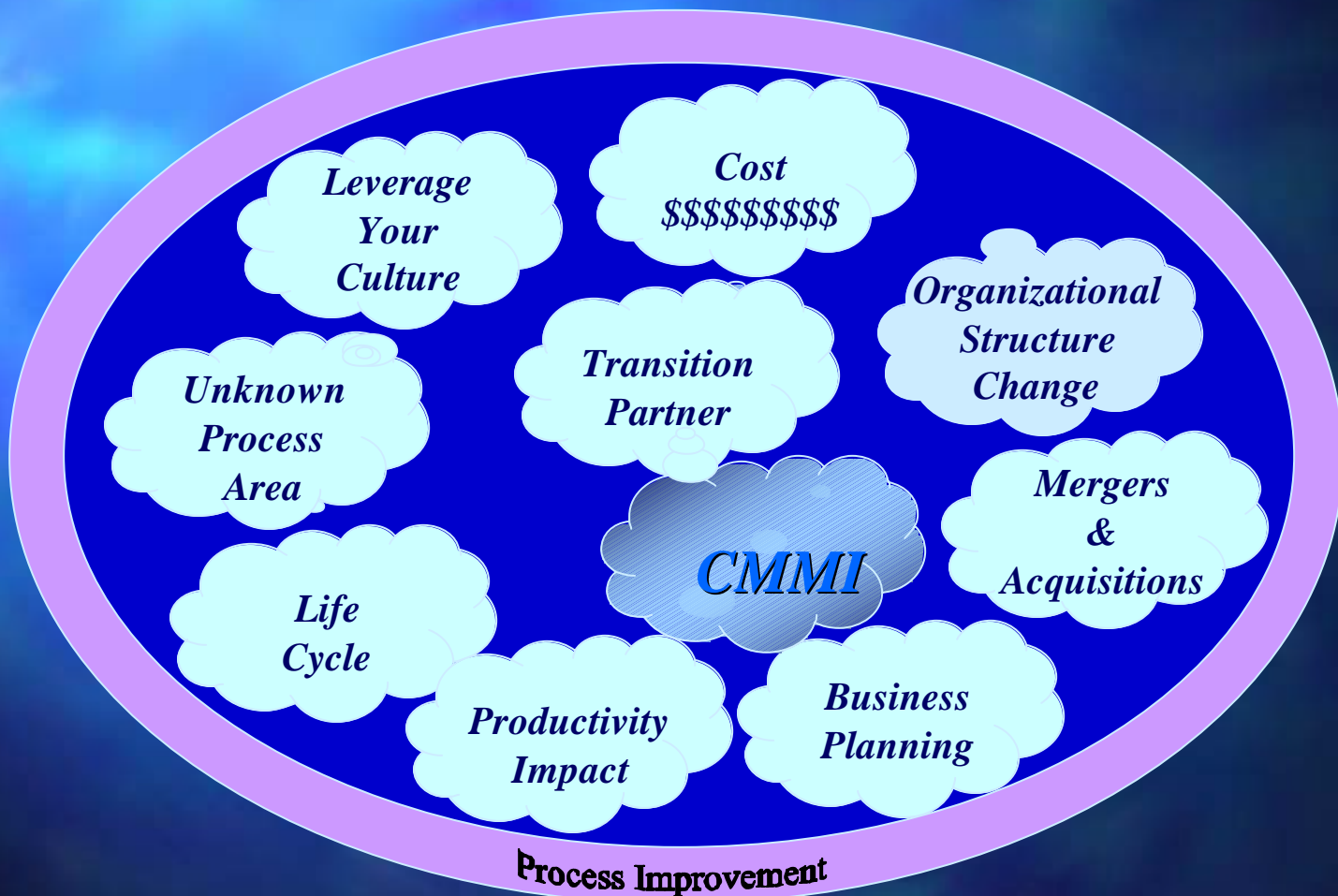# *CMMI Based Process Improvement Implementation Strategy Schema*

Joe Duquette & Mike Bloom

The MITRE Corporation

Process Improvement Strategy
Problem Space and Interfaces

Leverage Your Culture

Cost $$$$$$$$$

Organizational Structure Change

Unknown Process Area

Transition Partner

Mergers & Acquisitions

Life Cycle

CMMI

Productivity Impact

Business Planning

Process Improvement

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Problem Space Questions

- *What is the ultimate goal of process improvement?*
- *How will we get to that goal?*
- *What do we need to consider in planning process improvement?*
- *W... ...g...?*
- *W... ...e...*
- *... ...o we do business now?*
- *How will we do process improvement?*
- *Who needs to be considered?*
- *How do we want our process to execute?*

It's All in Your Strategy !

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What is Strategy

■ A Careful Plan or Method: a clever stratagem

■ The art of devising or employing plans or stratagems toward a goal
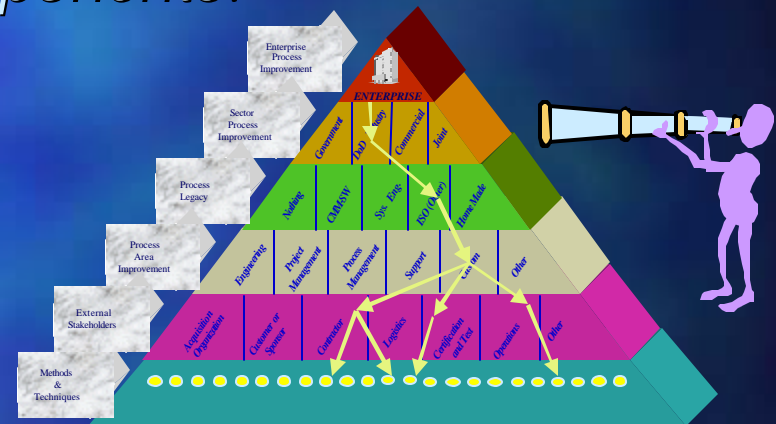
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A Strategy View

- *The strategy for process improvement can be broken down into the following components:*
  - *Enterprise Strategy*
  - *Sector Strategy*
  - *Process Legacy Strategy*
  - *Process Area Strategy*
  - *External Stakeholder Strategy*
  - *Methods & Technique Strategy*

- *These strategies can be viewed as a Pyramid ..*

The best view is from the top and the base is what holds it all together.

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Enterprise Strategy

ENTERPRISE

The Top of the Pyramid

■ *What do we want to be when we grow up?*
  – *Need to define the enterprise goals in terms of the desired end-state of the enterprise.*
  – *Need to establish the roles of enterprise leaders in the process improvement.*
  – *Need to identify and make available the appropriate resources to implement the strategy.*

■ *Rational people make rational decisions!*
  – *Need to establish the rationale for the adoption of the CMMI as the basis for enterprise process improvement.*
  – *Need to insure that the attributes of the enterprise are mapped to the framework.*

Nothing great was ever achieved without enthusiasm.
-- Ralph Waldo Emerson

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Sector Strategy

Government | DoD Industry | Commercial | Joint
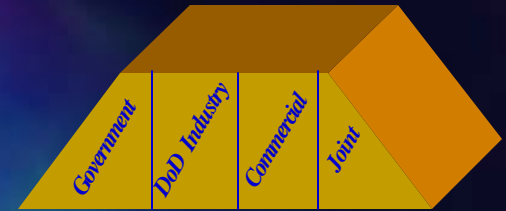
Where Do We Live

- **Clearly identify what your business is and how it relates to the rest of the world.**
  - *Government*
  - *DoD Industry*
  - *Commercial*
  - *Joint (e.g. DoD and Industry Partner)*
- **What you are has a strong influence on what you will be or want to be.**
  - *Identify the unique character of you business*
  - *Denial is an enemy..be yourself*
  - *Knowing this will allow for understanding of what path to follow to obtain the desired enterprise end-state*
- **How does your business operate in this sector.**
  - *What does the business cycle look like*
  - *What is the business tempo*
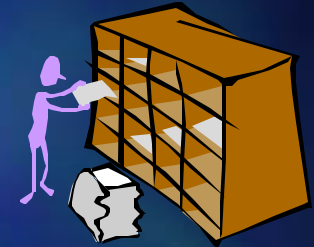
Your goals, minus your doubts, equal your reality.
-- Ralph Marston

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Process Legacy Strategy
Point of Departure

■ *What is your current approach to process?*
- *Nothing*
- *CMM-SW*
- *System Engineering*
- *ISO*
- *Homemade*

■ *Map your current process approach to the CMMI.*
- *Determine what is working*
- *Phase out what isn't working*
- *Identify the gaps that need to be filled*

■ *Identify and develop plans to manage the business transition impacts.*

Change is not merely necessary to life, it is life.
-- Alvin Toffler

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Process Area Strategy

Where the Rubber Hits the Road

- **Need to decide on which CMMI approach to take. The process legacy strategy will point the way.**
  - *Staged*
  - *Continuous*

- **Identify how you will do process development.**
  - *Staged - Need to do them all!*
  - *Continuous - What will be done first?*

- **The Sector Strategy will point the way as well, the business construct identified there needs to be mapped to the CMMI.**

- **Establish the resource requirement and how it will be managed.**

Problems cannot be solved at the same level of awareness that created them
-- Albert Einstein

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External Stakeholders

Process Is Done By People

- *Processes have an impact on the stakeholders.*
  - *Identify the impacts and needs*
  - *Determine if the processes will be shared*
  - *Are there processes used by external stakeholders that could be adapted by the enterprise*

- *Establish the methods of collaboration and the type of working relationships*
  - *Who are the players?*
  - *What is their authority?*
  - *Where will the engagements take place?*
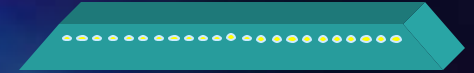 - *How often will the engagements occur?*
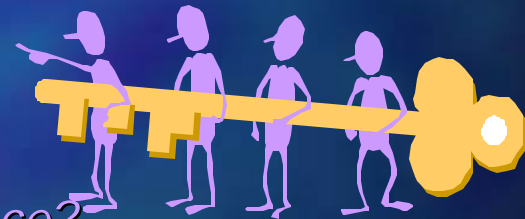
> Coming together is a beginning, staying together is progress, and working together is success.
> -- Henry Ford

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Methods & Technique Strategy

Tools Bring Process Alive

- *What tools (methods, techniques, procedures) are currently being used?*
  - *Why are they being used?*
  - *What are they being used for?*
- *Do these tools fit into the process strategy defined?*
  - *Are they consistent with the CMMI framework?*
- *Are they compatible with the the planned stakeholder collaboration?*
- *What tools are really needed?*
- *How will you acquire, manage, and use the tools in your toolbox?*
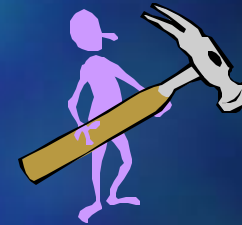
Men have become the tools of their tools.
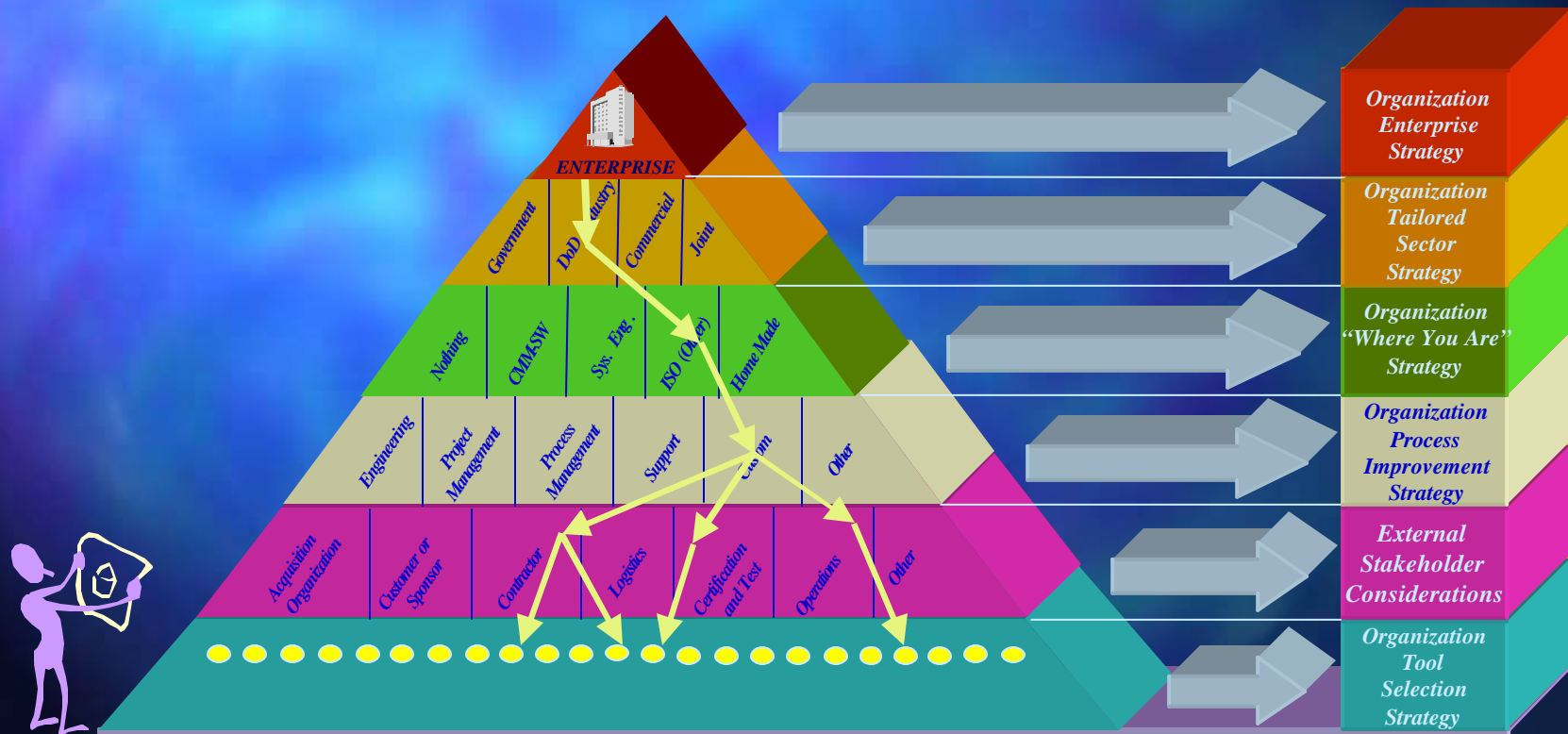-- Henry David Thoreau
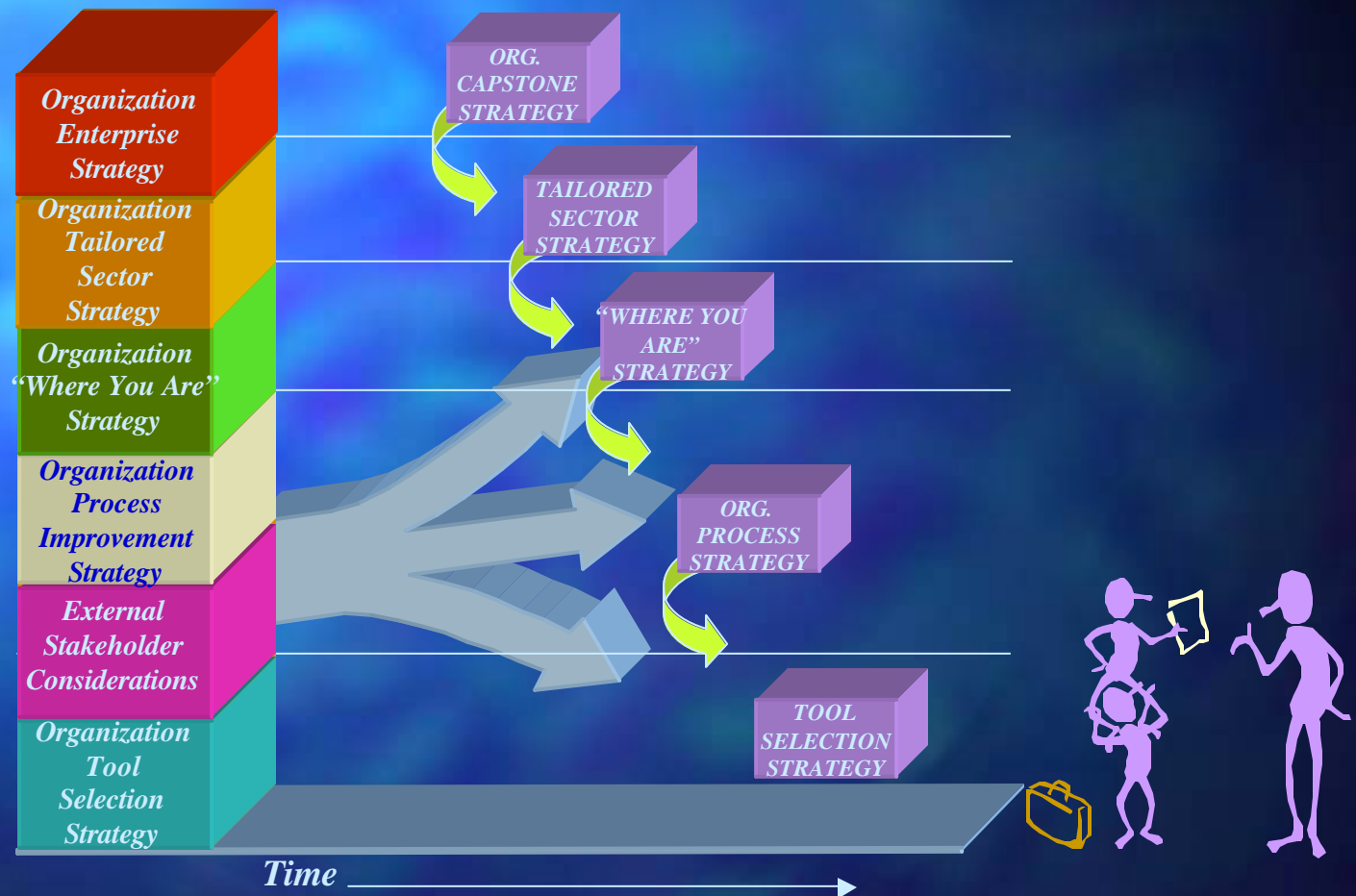
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Fitting It Altogether
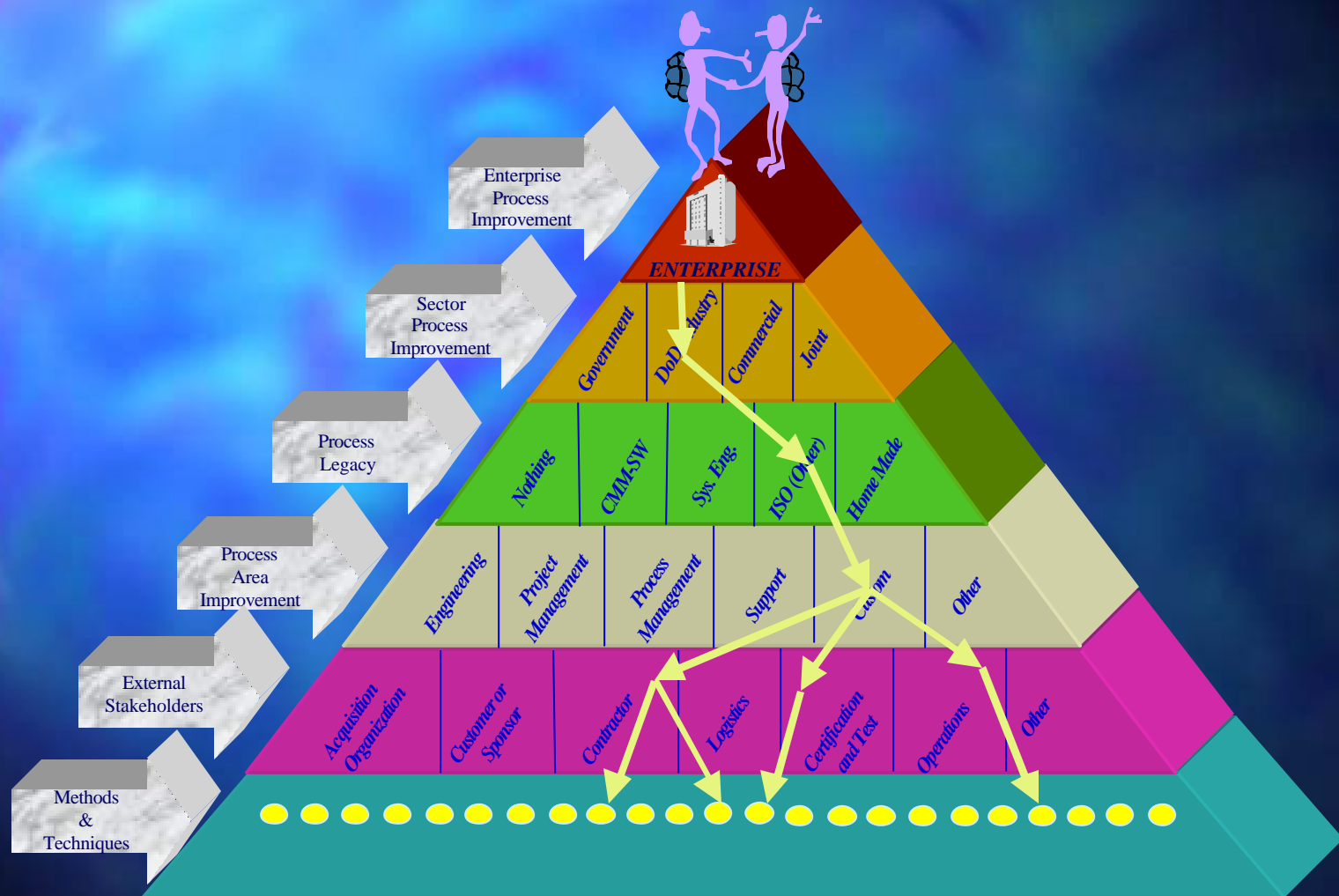
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Translation to Organization Strategy

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Organizational
Strategy Rollout (Notional)

Organization Enterprise Strategy

Organization Tailored Sector Strategy

Organization "Where You Are" Strategy

Organization Process Improvement Strategy

External Stakeholder Considerations

Organization Tool Selection Strategy

ORG. CAPSTONE STRATEGY

TAILORED SECTOR STRATEGY

"WHERE YOU ARE" STRATEGY

ORG. PROCESS STRATEGY

TOOL SELECTION STRATEGY

Time

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